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Cont.  
wherein the amount of said polymer and the amount of said filler are based on the weight sum of the polymer and of the filler; and

wherein said filler is selected from the group consisting of a chalk having an average particle diameter of from 2 to 50  $\mu\text{m}$ , a quartz flour having an average particle diameter of from 3 to 50  $\mu\text{m}$  and a combination thereof.

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### **BASIS FOR THE AMENDMENT**

Claim 9 has been amended as supported at page 4, lines 4 and 17 of the specification.

No new matter is believed to have been added by entry of this amendment. Entry and favorable reconsideration are respectfully requested.

Upon entry of this amendment Claims 9-35 will now be active in this application.

### **REQUEST FOR RECONSIDERATION**

Applicants wish to thank Examiner Shosho for her helpful and courteous discussion with Applicants' Representative on October 29, 2001. Applicants also appreciate that the Examiner granted Applicants Representative a second discussion on January 15, 2002.

Applicants respectfully request reconsideration of the application, as amended, in view of the following remarks and the attached Rule 132 Declaration.

The present invention as set forth in Claim 9 relates to an aqueous composition. Notably, the polymer of the aqueous dispersion is characterized by a gel content of 5 to 40% by weight and a number-average molecular weight of a tetrahydrofuran-soluble fraction of less than 30,000. In addition, the aqueous dispersion has 50 to 90% by weight of a filler which is a chalk having an average particle diameter of from 2 to 50  $\mu\text{m}$ , a quartz flour having an average particle diameter of from 3 to 50  $\mu\text{m}$  or a combination thereof.

In contrast, CA 2,182,743 fails to disclose or suggest an aqueous polymer dispersion having the combination of gel content, number-average molecular weight and amount/type of filler as claimed.

In fact, Examples 1-4 of CA 2,182,743 do not exemplify polymers having the claimed gel content and the claimed number-average molecular weight (Mn) of the polymers. Furthermore, Examples 1A-4A do not exemplify a composition having a quartz flour filler or a combination of a chalk and a quartz flour (CA 2,182,743, Examples 1A to 4A).

The attached 132 Declaration shows the gel content and the number average molecular weight of the polymers of Examples 1 to 4 of CA 2,182,743. The gel content and molecular weight of the soluble fraction were determined according to the procedure given in the present application.

The results are as follows:

<u>CA 2,182,743</u> , Polymer of example #	gel content %	Molecular weight Mn g/mol (Refractive index signal)
1	15±1	43000±1000
2	57±1	30500±500
3	45±2	41000±3000
4	55±1	26500±500

Clearly, none of the Examples of CA 2,182,743 has the required combination of gel content of 5 to 40% and Mn of less than 30,000. In Example 1, the molecular weight is outside the required range. In Examples 2 and 3, the gel content and the molecular weight are outside the required range. In Example 4, the gel content is outside the required range.

Furthermore, the Examples of the present invention demonstrate that the claimed aqueous composition quickly develops a high wet bonding capacity as shown in Table 3 on page 10 of the specification. This can only be achieved using a polymer having the claimed

combination of gel content and molecular weight.

Table 3 of the present application has been reproduced below. The tested dispersions have the following gel contents: Comparison Example 1: 54%; Comparison Example 2: 70%; Comparison Example 3: 68%; Example 4 (according to present invention): 15%.

Table 3

	Peel values		WBC N/5 cm			
	N/mm		10 min	15 min	20 min	30 min
	10 min	30 min				
1 (for comparison)	0.34	0.24	4	7	9	8
2 (for comparison)	0.91	0.07	2	5	11	22
3 (for comparison)	1.38	0.18	4	10	19	34
4 (according to invention)	1.22	0.24	12	26	44	49

The wet bonding capacity of Example 4, having the required gel content, is already high after 10 min, when a value of 12 N/5 cm is achieved. The wet bonding capacity of the Comparison Examples, however, is only in the order of 2-4 N/5 cm after 10 minutes.

Furthermore, the wet bonding capacity of Example 4, having the claimed gel content of 5 to 40%, quickly increases and reaches a value of 49 N/5cm after 30 min. In contrast, the values of the Comparison Examples, having gel contents outside the scope of the present invention, increase only slowly and reach only low values of 8-34 after 30 min.

Thus, even though the molecular weight of the polymers of the Comparison Examples fall within the claimed range, a superior wet bonding capacity can only be achieved if also the molecular weight is within the claimed range. Thus, the present invention is superior based

on the combination of the claimed gel content and molecular weight.

Therefore, the rejection of Claims 9-35 under 35 U.S.C. §102(b) as anticipated by CA 2,182,743 is believed to be unsustainable as the present invention is neither anticipated nor obvious and withdrawal of this rejection is respectfully requested.

The rejection of Claims 9-14 and 20 under 35 U.S.C. §103(a) over Kawashima et al in view of CA 2,182,743 is respectfully traversed.

This reference does not disclose or suggest the claimed fillers and their particle size.

Kawashima et al disclose an aqueous coating composition having a hollow polymer particle having at least two polymer layers and inter alia a filler (Kawashima et al, col. 4, line 65 to col. 5, line 5; col. 22, line 40). However, there is no disclosure or suggestion of a filler selected from the group consisting of a chalk having an average particle diameter of from 2 to 50  $\mu\text{m}$ , a quartz flour having an average particle diameter of from 3 to 50  $\mu\text{m}$  and a combination thereof.

Thus, the rejection of Claims 9-14 and 20 under 35 U.S.C. §103(a) over Kawashima et al in view of CA 2,182,743 is believed to be unsustainable as the present invention is neither anticipated nor obvious and withdrawal of this rejection is respectfully requested.

The rejection of Claims 9-10, 12-17, 21, 26, 27, 29 and 35 under 35 U.S.C. §103(a) over Tsuruoka et al is respectfully traversed.

This reference does not disclose or suggest the claimed fillers and their particle size.

Tsuruoka et al disclose a coating composition having a copolymer latex having a gel content of 10-98 wt.% obtained by emulsion polymerization of 20-65% of a conjugated diene, 0.1-10% of a combination of an ethylenically unsaturated monocarboxylic acid and an ethylenically unsaturated dicarboxylic acid, 33-79.5% of another ethylenically unsaturated compound, in the presence of 0.1 to 10 parts by wt. of an  $\alpha$ -methylstyrene dimer (Tsuruoka et

al, abstract). However, there is no disclosure or suggestion of a filler selected from the group consisting of a chalk having an average particle diameter of from 2 to 50  $\mu\text{m}$ , a quartz flour having an average particle diameter of from 3 to 50  $\mu\text{m}$  and a combination thereof.

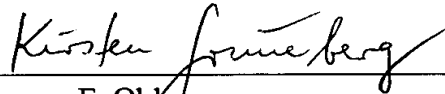
Therefore, the rejection of Claims 9-10, 12-17, 21, 26, 27, 29 and 35 under 35 U.S.C. §103(a) over Tsuruoka et al is believed to be unsustainable as the present invention is neither anticipated nor obvious and withdrawal of this rejection is respectfully requested.

The rejection of Claim 9 under 35 U.S.C. §112, second paragraph, is obviated by the amendment of Claim 9. As suggested by the Examiner, Applicants have inserted "tetrahydrofuran-" before "soluble."

Applicants submit that the present application is now in condition for allowance and early notice of such action is earnestly solicited.

Respectfully submitted,

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**IN THE CLAIMS**

--9. (Amended) An aqueous composition, comprising:

A) 10 to 50% by weight of a polymer having a gel content of [less than] 5 to 40% by weight and a number-average molecular weight,  $M_n$ , of a ~~tetrahydrofuran~~-soluble fraction of less than 30,000; and

wherein said polymer comprises from 60 to 100% by weight of a  $C_1$ - to  $C_{20}$ -alkyl (meth)acrylate or mixture of at least two  $C_1$ - to  $C_{20}$ -alkyl (meth)acrylates, based on a total weight of said polymer; and

B) 50 to 90% by weight of a filler;

wherein the amount of said polymer and the amount of said filler are based on the weight sum of the polymer and of the filler; and

wherein said filler is selected from the group consisting of a chalk having an average particle diameter of from 2 to 50  $\mu m$ , a quartz flour having an average particle diameter of from 3 to 50  $\mu m$  and a combination thereof.--